

REMARKS

The Amendments

Claim 11 is amended to incorporate the recitations of previous claims 35 and 36, these latter claims are accordingly amended to further limit these recitations. As stated previously when claims 35 and 36 were added, support for these recitations is found in the disclosure at page 3, line 22, to page 4, line 6; page 24, lines 23-36; and in the Examples, particularly Examples 2, 5 and 8-13. The amendments to claims 35 and 36 are also supported by this disclosure. For example, the disclosure that the dielectric constant perpendicular to the molecular axis, i.e., ϵ_{\perp} , should be large obviously means a smaller ratio of $\epsilon_{\parallel}/\epsilon_{\perp}$. This would also be clear to one of ordinary skill in the art from the disclosure that the composition should provide a small voltage shift, ΔV .

It is submitted that the above amendments would put the application in condition for allowance or materially reduce or simplify the issues for appeal. The amendments do not raise new issues or present new matter since they merely incorporate the substance of previously examined claims into the main claim. Also, no additional claims are presented. The amendments have been made to address the continuing grounds of rejection. Because applicants arguments in their Preliminary Response filed November 12, 2002, were not addressed until after they were resubmitted in the Reply of April 3, 2003, applicants were not fully informed of the Examiner's position. Thus, the current amendments and arguments were not yet deemed necessary and were not earlier presented. Accordingly, it is submitted that the requested amendments should be entered.

To the extent that the amendments avoid the prior art or for other reasons related to patentability, competitors are warned that the amendments are not intended to and do not limit the scope of equivalents which may be asserted on subject matter outside the literal

scope of any patented claims but not anticipated or rendered obvious by the prior art or otherwise unpatentable to applicants. Applicants reserve the right to file one or more continuing and/or divisional applications directed to any subject matter disclosed in the application which has been canceled by any of the above amendments.

The Rejection Under 35 U.S.C. § 103

The rejection of claims 11-36 under 35 U.S.C. § 103, as being obvious over Kondo (U.S. Patent No. 6,210,761) is respectfully traversed. This is the sole remaining rejection.

Applicants maintain their previous argument, as further discussed below, but now add additional weight to the case for nonobviousness by the additional distinction of the properties previously in claims 35 and 36 which are now in the main claim. This distinction is further supported by the comparative data in the Declaration under 37 C.F.R. § 1.132 filed herewith. Kondo discloses nothing regarding the dielectric anisotropy of its compositions parallel or perpendicular to the director, i.e., the molecular axis. Thus, it discloses nothing regarding the ratio of the dielectric anisotropies of the liquid-crystal medium parallel and perpendicular to the director and certainly fails to disclose or suggest compositions wherein such ratio is less than or equal to 1.93. As pointed out in the instant specification (page 3, lines 25-29), it is desirable for certain displays to have a dielectric constant perpendicular to the molecular axis, i.e., ϵ_{\perp} , as large as possible. A large ϵ_{\perp} obviously means a smaller ratio of $\epsilon_{\parallel}/\epsilon_{\perp}$, as achieved according to the claims as currently amended. The data for applicants' composition examples which remain in the claimed scope, i.e., Examples 2, 5-11, 13 and 14, show that applicants are able to achieve this smaller ratio of $\epsilon_{\parallel}/\epsilon_{\perp}$. Two representative examples of Kondo were compared, Examples 17 and 19 were selected since they exhibit a positive dielectric anisotropy, $\Delta\epsilon$. The Kondo media exhibit a significantly higher ratio, $\epsilon_{\parallel}/\epsilon_{\perp}$,

than applicants' claimed compositions. The advantage in the smaller ratio according to applicants' currently claimed invention could not have been expected from the Kondo disclosure, since it discloses nothing regarding such ratio. Further, it would not have been obvious to one of ordinary skill in the art to modify the Kondo compositions to achieve such ratio because there is nothing in the Kondo disclosure to suggest the desirability of lowering such ratio. Thus, Kondo fails to render the claimed invention reciting such ratio obvious to one of ordinary skill in the art.

As noted above applicants also maintain their previous argument that Kondo fails to fairly suggest to one of ordinary skill in the art compositions having the components of applicants' formulae I and II and an overall positive dielectric anisotropy. Applicants respectfully submit that the statement in the Office Action that Kondo teaches the cyclohexyl ring and phenyl ring in formulae 10-12 of Kondo are exchangeable is not supported by the reference. It would have been known in the art that exchanging a phenyl and cyclohexyl group in such compounds would alter the dielectric anisotropy of the compound and the compositions containing such compound. This is also inferred from Kondo itself, since Kondo discloses compounds with the cyclohexylene ring meeting applicants' formula II only in the compositions having a negative overall dielectric anisotropy and excludes such compounds in all of its compositions having a positive dielectric anisotropy. Since the dielectric anisotropy is clearly a key property in the Kondo compositions, it would not have been obvious to one of ordinary skill in the art to alter the compositions of Kondo's Examples 25 or 26 to replace the 2,3-difluorophenyl compound having three phenylene rings with one having the terminal phenylene ring replaced by cyclohexyl. Kondo's disclosure, as a whole, only suggests the use of such compounds when compositions with an overall negative dielectric anisotropy are desired.

To summarize the previous arguments, the Kondo compositions do not contain a compound of applicants' formula II together in a mixture with a dielectrically positive compound of applicants' formula I or of any other dielectrically positive compound. Thus, Kondo does not suggest a composition which contains a compound of applicants' formula II and, overall, exhibits a positive dielectric anisotropy. The compositions of Kondo which do contain dielectrically positive compounds and an overall positive dielectric anisotropy, i.e., Composition Examples 11-22, contain no compounds of applicants' formula II. The broad disclosure may encompass such, but there is no fair suggestion of applicants' invention therein, particularly when the additional properties now recited in the main claim are considered.

Kondo recites, in one embodiment, the objective of compositions with negative dielectric anisotropy (see, e.g., col. 1, lines 32-38) and, in another embodiment, compositions with an overall positive dielectric anisotropy. When one of ordinary skill in the art looks at the Kondo disclosure for choosing which compounds to use for either a dielectrically negative or positive composition, the Examples unfailingly direct that compounds meeting applicants' formula II are only desired for use in an overall dielectrically negative composition and not together with dielectrically positive compounds also. Every composition example of Kondo which contains a compound of applicants' formula II excludes compounds having positive dielectric anisotropy and, thus, provides a dielectrically negative composition. Conversely, every composition example of Kondo which includes dielectrically positive compounds and has an overall positive dielectric anisotropy, i.e., Examples 11-22, excludes any compound of applicants' formula II. Accordingly, applicants urge that there is no fair suggestion from the Kondo disclosure of compositions containing dielectrically positive compounds in addition to compounds of formula II and exhibiting an

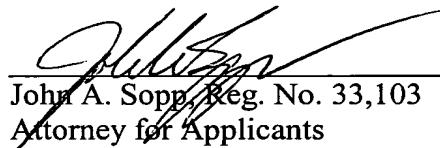
overall positive dielectric anisotropy. Particularly in view of the direction provided by the Kondo examples, there would have been no suggestion to one of ordinary skill in the art to pick and choose from Kondo's broad disclosure compounds which would meet the component and property recitations of the instant claims.

For all of the above reasons, it is urged that the rejection under 35 U.S.C. § 103 should be withdrawn.

It is submitted that the application is in condition for allowance. But the Examiner is kindly invited to contact the undersigned to discuss any unresolved matters.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,


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